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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/633,419	08/04/2003	Naoya Nakanishi	SNY-037	2557

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KUBOVCIK & KUBOVCIK
SUITE 710
900 17TH STREET NW
WASHINGTON, DC 20006

EXAMINER

CREPEAU, JONATHAN

ART UNIT	PAPER NUMBER
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1745

MAIL DATE	DELIVERY MODE
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09/20/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/633,419	Applicant(s) NAKANISHI ET AL.	
	Examiner Jonathan S. Crepeau	Art Unit 1745	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 July 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 3,5,7-10,13 and 14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 3,5 and 13 is/are allowed.
- 6) ☒ Claim(s) 7-10 is/are rejected.
- 7) ☒ Claim(s) 14 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

1. This Office action addresses claims 3, 5, 7-10, 13, and newly added claim 14. Claims 3, 5, and 13 are allowed and claim 14 is objected to as containing allowable subject matter. Claims 7-10 are newly rejected under 35 USC 103 as necessitated by amendment. Accordingly, this action is made final.

Claim Rejections - 35 USC § 103

2. Claims 7-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hanafusa et al (U.S. Patent 6,531,246) in view of Yamazaki et al (U.S. Patent 6,632,538) in view of Benson et al (U.S. Pre-Grant Publication No. 2003/0027039).

Hanafusa teaches a battery comprising a can (1) and having positive and negative terminals (21, 20). The battery can may be made of aluminum (see col. 8, line 26) or stainless steel (col. 6, line 23). As shown in Figure 7, the terminal 21 is in contact with a coating layer comprising the can material (5). As shown in Figure 15, the terminal 20 is coated with a material (17b) comprising nickel, copper, or aluminum (see col. 11, line 45).

Hanafusa does not expressly teach the base material composition of the terminals as recited in claims 1, 3, and 5.

Yamazaki et al. is directed to a lithium secondary battery. In column 2, line 54, the reference teaches the following:

The tab 59 connected to the positive terminal 55 is a metal tab of Al or a stainless steel, and the tab 60 connected to the negative terminal 56 is a metal tab of Cu, Ni or a stainless steel.

Therefore, the invention as a whole would have been obvious to one of ordinary skill in the art at the time the invention was made because the artisan would be motivated to use aluminum as the positive terminal and stainless steel as the negative terminal of Hanafusa et al. The disclosure of Yamazaki et al. indicates that these are suitable materials for use as positive and negative terminals. The selection of a known material based on its suitability for its intended use has generally been held to be *prima facie* obvious (MPEP §2144.07). Taking terminal 21 of Hanafusa to be the positive terminal and terminal 20 to be the negative terminal, with regard to claim 8, this would result in an aluminum battery can, a stainless steel negative terminal (20), an aluminum positive terminal (21), and a coating layer (17b) of aluminum (see Fig. 15). Regarding claim 9, the can may be stainless steel, the positive terminal (21) would be aluminum, the negative terminal (20) would be stainless steel, and the coating layer on the positive terminal (21) would also be stainless steel (see Fig. 7). As such, the claimed subject matter would be rendered obvious.

Regarding claim 7, which recites two batteries connected in series, it would be obvious to connect the batteries of Hanafusa in series to increase the voltage of a single battery. However, the reference does expressly teach that the terminals are in direct contact with each other.

In Figures 4A-4F, Benson et al. teach various configurations for connecting flat batteries in series, where the terminals of opposite polarity are in direct contact with each other.

Therefore, it is submitted that the artisan would be sufficiently skilled to connect the batteries of Hanafusa in the manner disclosed by Benson et al. Such direct terminal contact

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would eliminate the use of leads and bus bars and would provide for a compact multi-battery structure. As such, this limitation would be rendered obvious.

Conclusion

3. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, THIS ACTION IS MADE FINAL. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

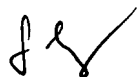
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jonathan Crepeau whose telephone number is (571) 272-1299. The examiner can normally be reached Monday-Friday from 9:30 AM - 6:00 PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick Ryan, can be reached at (571) 272-1292. The phone number for the

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organization where this application or proceeding is assigned is (571) 272-1700. Documents may be faxed to the central fax server at (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Jonathan Crepeau
Primary Examiner
Art Unit 1745
September 13, 2007